IWD/11624/CO

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 23, 2008

TO: Persons on the attached mailing list.

RE: Aransas County Municipal Utility District No. 1
TPDES Permit No. WQ0011624001

Decision of the Executive Director.

The executive director has made a decision that the above-referenced permit application meets the requirements of applicable law. **This decision does not authorize construction or operation of any proposed facilities.** Unless a timely request for contested case hearing or reconsideration is received (see below), the TCEQ executive director will act on the application and issue the permit.

Enclosed with this letter is a copy of the Executive Director's Response to Comments. A copy of the complete application, draft permit and related documents, including public comments, is available for review at the TCEQ Central office. A copy of the complete application, the draft permit, and executive director's preliminary decision are available for viewing and copying at the Aransas County Navigation District No. 1 Office, 911 Navigation Circle, Rockport, Texas.

If you disagree with the executive director's decision, and you believe you are an "affected person" as defined below, you may request a contested case hearing. In addition, anyone may request reconsideration of the executive director's decision. A brief description of the procedures for these two requests follows.

How To Request a Contested Case Hearing.

It is important that your request include all the information that supports your right to a contested case hearing. You must demonstrate that you meet the applicable legal requirements to have your hearing request granted. The commission's consideration of your request will be based on the information you provide.

The request must include the following:

(1) Your name, address, daytime telephone number, and, if possible, a fax number.

(2) If the request is made by a group or association, the request must identify:
   (A) one person by name, address, daytime telephone number, and, if possible, the fax number, of the person who will be responsible for receiving all communications and documents for the group; and
   (B) one or more members of the group that would otherwise have standing to request a hearing in their own right. The interests the group seeks to protect must relate to the organization's purpose. Neither the claim asserted nor the relief requested must require the participation of the individual members in the case.

(3) The name of the applicant, the permit number and other numbers listed above so that your request may be processed properly.

(4) A statement clearly expressing that you are requesting a contested case hearing. For example, the following statement would be sufficient: "I request a contested case hearing."

Your request must demonstrate that you are an **"affected person."** An affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. Your request must describe how and why you would be adversely affected by the proposed facility or activity in a manner not common to the general public. For example, to the extent your request is based on these concerns, you should describe the likely impact on your health, safety, or uses of your property which may be adversely affected by the proposed facility or activities. To demonstrate that you have a personal justiciable interest, you must state, as specifically as you are able, your location and the distance between your location and the proposed facility or activities.

Your request must raise disputed issues of fact that are relevant and material to the commission's decision on this application. The request must be based on issues that were raised during the comment period. The request cannot be based solely on issues raised in comments that have been withdrawn. The enclosed Response to Comments will allow you to determine the issues that were raised during the comment period and whether all comments raising an issue have been withdrawn. The public comments filed for this application are available for review and copying at the Chief Clerk's office at the address below.

To facilitate the commission's determination of the number and scope of issues to be referred to hearing, you should: 1) specify any of the executive director's responses to comments that you dispute; and 2) the factual basis of the dispute. In addition, you should list, to the extent possible, any disputed issues of law or policy.

How To Request Reconsideration of the Executive Director's Decision.

Unlike a request for a contested case hearing, anyone may request reconsideration of the executive director's decision. A request for reconsideration should contain your name, address, daytime phone number, and, if possible, your fax number. The request must state that you are requesting reconsideration of the executive director's decision, and must explain why you believe the decision should be reconsidered.

Deadline for Submitting Requests.

A request for a contested case hearing or reconsideration of the executive director's decision must be in writing and must be **received by** the Chief Clerk's office no later than **30 calendar days** after the date of this letter: You should submit your request to the following address:

LaDonna Castañuela, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

Processing of Requests.

Timely requests for a contested case hearing or for reconsideration of the executive director's decision will be referred to the alternative dispute resolution director and set on the agenda of one of the commission's regularly scheduled meetings. Additional instructions explaining these procedures will be sent to the attached mailing list when this meeting has been scheduled.

How to Obtain Additional Information.

If you have any questions or need additional information about the procedures described in this letter, please call the Office of Public Assistance, Toll Free, at 1-800-687-4040.

Sincerely,

LaDonna Castañuela
Chief Clerk

LDC/ka

Enclosures

MAILING LIST
for
Aransas County Municipal Utility District No. 1
TPDES Permit No. WQ0011624001

FOR THE APPLICANT:

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Aransas County MUD No. 1
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Robert P. Callagari, P.E.
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PROTESTANTS/INTERESTED PERSONS:

See attached list.

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Julian D. Centeno, Jr., Technical Staff
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FOR OFFICE OF PUBLIC ASSISTANCE:

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FOR THE CHIEF CLERK:

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Proposed Amended TPDES Permit No. WQ0011624001

Application by **ARANSAS COUNTY MUNICIPAL** **UTILITY DISTRICT NUMBER 1** for **TPDES Permit No. WQ0011624001**	§ § § §	Before the **TEXAS COMMISSION ON** **ENVIRONMENTAL QUALITY**

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director of the Texas Commission on Environmental Quality (the Commission or TCEQ) files this Response to Public Comment (Response) on the application by Aransas County Municipal Utility District Number 1 (Aransas MUD No. 1) for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit Number WQ0011624001 and on the Executive Director's preliminary decision on the application. As required by Title 30 of the Texas Administrative Code, Section 55.156, before a permit is issued, the Executive Director prepares a response to all timely, relevant and material, or significant, comments. The Office of Chief Clerk timely received comment letters and comments at the public meeting from:

Neil J. Adams,
Richard R. Adams,
Larry T. Alexander,
Robert L. Andrews,
Kenneth Ballard,
Augustine Barrera, Jr.,
James B. Blackburn, Jr.,
Jay Brans,
Ann Bright, representing Texas Parks and Wildlife Department (TPWD),
Emil Broz,
Judy Burge,
Richard G. Caldwell,
Richard W. Caldwell,
Stephen M. Carleton,
Steven W. Clamon,
Craig Clark, for the Texas Department of Transportation,
Jim Collins,
Pam Collins,
Carole Davis,
Corina Domaschk,
Keren Dotson,
Clarence and Gladys Dziuk,
Mrs. Davis C. Edwards,
Lynn Edwards,
Robert M. Edwards,
George Foulds,
David Gill,
Robert Gordon,
Marjorie Greeson,
Mrs. John Grimaudo,
Donald and Patricia Gyorog,
Michael D. Gyorog,
Thomas J. Gyorog,
David B. Hatcher,
Greg Haynes,
Betty Hediger,
Beth Hester,
H. Dickson Hoese,
Barbara and Wesley Howe,
Bob and Sheralyn Humble,
Zella Hunt,
Clay Jarvis,
Dohn Larson,
Rose Marie Leland,
Marshal and Victoria Lightman,
George Longoria,

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2008 MAY 19 PM 4:19
CHIEF CLERKS OFFICE

Thomas D. McChesney, of the Neptune Harbor Canal Owners Association (NHCOA),
Graden and Jeane McVay,
Graden N. McVay,
Mrs. Jean McVay,
Robin A. Melvin, on behalf of the Texas Chapter of the Coastal Conservation Association,
Paul Mercier,
Allan Middleton,
Robert A. Nelson, Jr.,
Donald O'Connor,
Bertha L. Oliver,
James Otto, on behalf of the Holiday Beach Property Owners' Association, Inc. (HBPOA),
Linda D. Pechacek,
Patrick W. Pollok,
S. V. Pruski,
W. R. Raney,
Bill Reitmann, for the Texas Department of Transportation,
Neil Richardson,
Delores Rogowicz,
Eugene Rogowicz,
William H. Schmidt, on behalf of HBPOA,
Diana Sebastian,
Sandra Sloop,
Jim Smarr, for the Texas Recreational Fishing Alliance,
Michael Solis,
Donna C. and Kenneth H. Stewart,
Dinah and Harold Sullivan,
Joseph Sympson,
Dwight Taylor,
Linda K. Taylor,
Jim Turner,
Anthony S. Valek,
Edward and Jane Wicker, and
Jane Wicker.

This Response addresses all comments received, whether or not withdrawn. If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Office of Public Assistance at 1-800-687-4040. General information about the TCEQ can be found at our website at www.tceq.state.tx.us.

BACKGROUND

Description of Facility

Aransas County Municipal Utility District Number 1 has applied to the TCEQ for a major amendment to its TPDES permit that would authorize a discharge of treated domestic wastewater to a receiving body of water, and an increase in the discharge of treated domestic wastewater from a daily average flow not to exceed 88,000 gallons per day via irrigation to a daily average flow not to exceed 131,500 gallons per day in the Interim II phase and to a daily average flow not to exceed 263,000 gallons per day in the Final phase via discharge to a receiving body of water. The proposed amendment requests to construct a new wastewater treatment facility beside and towards the northeast of the existing facility within the MUD property.

The Aransas County MUD No. 1 Wastewater Treatment Facility is an activated sludge process plant operated in the extended aeration mode in the Interim I Phase. The new facility will be operated as a membrane biological reactor in the Interim II and Final Phases. Treatment units in the Interim I Phase include a bar screen, an aeration basins, a final clarifier, a sludge holding tank,

and a chlorine contact chamber. Treatment units in the Interim II and Final Phases include a bar screen, a flow equalization basin, an anoxic basin, an aerobic basin, a membrane filtration basin, a membrane sludge holding and thickening basin, an aerobic sludge digester, and a chlorine contact chamber. The facility is operating in the Interim I Phase. The Interim II and Final Phase facilities have not been constructed. Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ permitted landfill and land application sites, Texas Sludge Disposal, Inc. in San Patricio County. The draft permit authorizes the disposal of sludge at a TCEQ authorized land application site or co-disposal landfill.

The facility is located approximately 1,100 feet south of 8th Street and approximately 500 feet west of Park Road 13 (Palmetto Drive) in the Lamar Peninsula in Aransas County, Texas. The existing wastewater treatment facility serves the Goose Island Estates Park Subdivision and Goose Island State Park. The proposed wastewater treatment facility will also serve the Lamar Water Supply Corporation service area and the Lamar Pointe Subdivision. The treated effluent will be discharged to a series of two unnamed ponds along State Highway 35, which flow into Aransas Bay in Segment No. 2471 of the Bays and Estuaries. The unclassified receiving water uses are high aquatic life uses for the series of two ponds. The designated uses for Segment No. 2471 are exceptional aquatic life uses, oyster waters and contact recreation. Segment No. 2471 is not currently listed on the State's inventory of impaired and threatened waters (the Clean Water Act Section 303(d) list).

Procedural Background

The application was received on June 30, 2006, and declared administratively complete on September 15, 2006. Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI) was published September 27, 2006, in the *Rockport Pilot*. The TCEQ Executive Director completed the technical review of the application on December 29, 2006, and prepared a draft permit. A public meeting was held on October 22, 2007, in Fulton, Texas. Notice of Application and Preliminary Decision for TPDES Permit for Municipal Wastewater Amendment (NAPD) was published November 10, 2007, in the *Rockport Pilot* and the comment period closed December 10, 2007. This application was administratively complete on or after September 1, 1999; therefore, this application is subject to the procedural requirements adopted pursuant to House Bill 801 (76th Legislature, 1999).

Access to Rules, Laws and Records

Secretary of State website for all administrative rules: www.sos.state.tx.us
TCEQ rules in Title 30 of the Texas Administrative Code: www.sos.state.tx.us/tac/ (select "TAC Viewer" on the right, then "Title 30 Environmental Quality")
Texas statutes: www.capitol.state.tx.us/statutes/statutes.html
TCEQ website: www.tceq.state.tx.us (for downloadable rules in WordPerfect or Adobe PDF formats, select "Rules, Policy, & Legislation," then "Rules and Rulemaking," then "Download TCEQ Rules")
Federal rules in Title 40 of the Code of Federal Regulations: www.epa.gov/epahome/cfr40.htm

Federal environmental laws: www.epa.gov/epahome/laws.htm

Commission records for this facility are available for viewing and copying and are located at TCEQ's main office in Austin, 12100 Park 35 Circle, Building E, Room 103 (Central Records, for existing or past permits), or Building F, 1st Floor (Office of Chief Clerk, for the current application until final action is taken), and at TCEQ's Region 14 Office in Corpus Christi at NRC Bldg., Ste. 1200, 6300 Ocean Dr., Unit 5839. The application for this facility has been available for viewing and copying at the Aransas County Navigation District No. 1 Office, 911 Navigation Circle, Rockport, Texas since publication of the NORI and the application, draft permit, statement of basis/technical summary, and Executive Director's preliminary decision have been available for viewing and copying at the same location since publication of the NAPD.

If you would like to file a complaint about the facility concerning its compliance with provisions of its permit or with TCEQ rules, you may contact the Agency at 1-888-777-3186 or you may contact the TCEQ Region 14 Office at 361-825-3100. Citizen complaints may also be filed on-line at the TCEQ website (select "Reporting," then "Reporting Environmental Problems," then "Reporting an Environmental Complaint"). If the facility is found to be out of compliance it may be subject to enforcement action.

COMMENTS and RESPONSES

COMMENT 1

Dinah & Harold Sullivan suggested moving the plant and the buffer zone to the north and building a new plant.

RESPONSE 1

Aransas MUD No. 1 agreed to construct a new wastewater treatment facility beside and towards the northeast of the existing facility, which changed the buffer zone from what was originally proposed and noticed. The revised Notice of Application and Preliminary Decision for TPDES Permit for Municipal Wastewater Amendment was published on November 10, 2007.

COMMENT 2

Marshal & Victoria Lightman stated that the district had a history of bankruptcy and could not handle the treatment plant.

RESPONSE 2

Financial ability to operate the proposed wastewater treatment facility is not a factor the Executive Director considers when processing a wastewater permit application. After permit issuance, the permittee is responsible for adequately maintaining the facility and remaining in compliance with the permit conditions and regulations. Failure to do so exposes the permittee to enforcement action.

COMMENT 3

Judy Burge was concerned that water quality in the bays was going down. Marshal & Victoria Lightman noted that the proposed discharge was only 100 yards away from Copano Bay and would put the quality of both Aransas Bay and Copano Bay at risk. They also mentioned that Copano bay is a federally protected estuary.

RESPONSE 3

All permits under the TPDES program are written to contain effluent limitations that protect existing uses and preclude degradation of existing water quality. The effluent limits recommended in the draft permit are designed to be protective of water quality in both Aransas Bay and Copano Bay. Aransas Bay and Copano Bay have generally the same criteria. Effluent limits assigned to be protective of Aransas Bay, the nearer of the two bays, are also considered to be protective of Copano Bay.

COMMENT 4

Marshal & Victoria Lightman believed that Aransas MUD No. 1 would leave the taxpayers with one big problem.

RESPONSE 4

TCEQ's jurisdiction in a water quality permit application is limited to the issues set out by statute. The Texas Water Code does not list the effect on taxpayers as a factor the TCEQ can consider in the issuance of a water quality permit.

COMMENT 5

Texas Parks & Wildlife acknowledged that the draft permit addressed its concerns, primarily on nutrient limitations and direct discharge into the bay.

RESPONSE 5

The Executive Director acknowledges this comment.

COMMENT 6

Larry Alexander supported the draft permit.

RESPONSE 6

The Executive Director acknowledges this comment.

COMMENT 7

Jay Brans opposed the discharge of treated effluent to a holding pond adjacent to Aransas Bay. Clarence & Gladys Dziuk and S. V. Pruski objected to putting the treated wastewater into the pond located at the old Sea Gun Resort.

RESPONSE 7

The two unnamed ponds along State Highway 35 are part of the discharge route and they fall within the definition of water in the state. The TCEQ Water Quality Standards Team has determined that existing water quality uses will not be impaired by this permit action. With effluent limits in the final phase of 5 milligrams per liter (mg/l) of 5-day carbonaceous biochemical oxygen demand, 5 mg/l total suspended solids, 2 mg/l ammonia nitrogen, 0.5 mg/l total phosphorus and adding a total nitrogen limit of 8 mg/l, a Tier 2 antidegradation review has determined that no significant degradation of water quality in Aransas Bay, having exceptional aquatic life use, and the ponds, having high aquatic life use, is expected. Existing uses will be maintained and protected.

COMMENT 8

Neil Adams, Richard Adams, Robert Andrews, Kenneth Ballard, Emil Broz, Richard Caldwell, Stephen Carleton, Jim Collins, Pam Collins, Keren Dotson, Mrs. Davis Edwards, Lynn Edwards, Robert Edwards, George Foulds, David Gill, Robert Gordon, Marjorie Greeson, Mrs. John Grimaudo, Michael & Thomas Gyorog, David Hatcher, Greg Haynes, Beth Hediger, Beth Hester, C. F. Hooker, Zella Hunt, Rose Marie Leland, Marshal & Victoria Lightman, Thomas McChesney, Graden McVay, Jean McVay, Allan Middleton, Robert Nelson, Donald O'Connor, Patrick Pollok, W. R. Raney, Delores Rogowicz, Eugene Rogowicz, Diana Sebastian, Sandra Sloop, Michael Solis, Donna & Kenneth Stewart, Dwight Taylor, Linda Taylor, Jim Turner, and Edward & Jane Wicker

expressed concern that the effluent into the bay, primarily improperly processed sewage, would present a direct hazard to human health and safety and to public waters.

RESPONSE 8

In compliance with the Texas Surface Water Quality Standards, all permits under the TPDES program are written to contain effluent limitations that protect existing uses and preclude degradation of existing water quality. Compliance with the effluent limits in the draft permit is required for the proper operation of a facility. If the facility is found to be out of compliance it will be subject to enforcement action.

COMMENT 9

Neil Adams, Richard Adams, Robert Andrews, Kenneth Ballard, Emil Broz, Richard Caldwell, Stephen Carleton, Jim Collins, Pam Collins, Keren Dotson, Mrs. Davis Edwards, Lynn Edwards, Robert Edwards, George Foulds, David Gill, Robert Gordon, Marjorie Greeson, Mrs. John Grimaudo, Michael & Thomas Gyorog, David Hatcher, Greg Haynes, Beth Hediger, Beth Hester, C. F. Hooker, Zella Hunt, Rose Marie Leland, Marshal & Victoria Lightman, Thomas McChesney, Graden McVay, Jean McVay, Allan Middleton, Robert Nelson, Donald O'Connor, Patrick Pollok, W. R. Raney, Delores Rogowicz, Eugene Rogowicz, Diana Sebastian, Sandra Sloop, Michael Solis, Donna & Kenneth Stewart, Dwight Taylor, Linda Taylor, Jim Turner, and Edward & Jane Wicker expressed concern that the District is bankrupt and has not demonstrated the financial, managerial, or technical resources to operate the expanded system. William Schmidt pointed to the poor financial, management, operational skills, and service record of the applicant.

RESPONSE 9

The Executive Director requires that the facility be designed by a professional engineer and the permit holder must use a licensed operator to operate the facility. By applying and signing the application for a draft permit, the applicant becomes responsible upon issuance for abiding by the permit limitations and certifying that the appropriately authorized individuals have designed and are operating the facility. Failure to abide by the permit requirements constitutes an enforceable violation. If the facility is found to be out of compliance it will be subject to enforcement action.

The compliance history of this facility since June 30, 2001 (starting five years prior to submitting the application), indicates one notice of violation issued to Aransas MUD No. 1 on October 1, 2004. The violation referred to a failure to design and manage irrigation practices so as to prevent the ponding of effluent. The TCEQ Investigation Report indicates that the violation was resolved when Aransas MUD No. 1 submitted a letter indicating that 80 loads of dirt was added to the 12.681-acre tract of land. The information was verified by a TCEQ Region 14 Comprehensive Compliance Investigation conducted on April 14, 2005.

The compliance history ranking and classification for this facility and operator are 0.6 Average. (Point ranges for TCEQ compliance history rankings and classifications are: less than 0.1 points means a High Performer; 0.1 to 45 points means an Average Performer, and more than 45 points means a Poor Performer.)

COMMENT 10

Neil Adams, Richard Adams, Robert Andrews, Kenneth Ballard, Emil Broz, Richard Caldwell, Stephen Carleton, Jim Collins, Pam Collins, Keren Dotson, Mrs. Davis Edwards, Lynn Edwards, Robert Edwards, George Foulds, David Gill, Robert Gordon, Marjorie Greeson, Mrs. John Grimaudo, Michael & Thomas Gyorog, David Hatcher, Greg Haynes, Beth Hediger, Beth Hester, C. F. Hooker, Zella Hunt, Rose Marie Leland, Marshal & Victoria Lightman, Thomas McChesney, Graden McVay, Jean McVay, Allan Middleton, Robert Nelson, Donald O'Connor, Patrick Pollok, W. R. Raney, Delores Rogowicz, Eugene Rogowicz, Diana Sebastian, Sandra Sloop, Michael Solis, Donna & Kenneth Stewart, Dwight Taylor, Linda Taylor, Jim Turner, and Edward & Jane Wicker questioned whether the proposed water quality treatment standards of the draft permit will protect human health and safety and state waters. Donald & Patricia Gyorog would like an assurance that the draft permit will be protective of public health and safety and state waters for any hazard.

RESPONSE 10

The draft permit meets the Texas Surface Water Quality Standards, which are protective of human health, safety, and the environment, and protective of the existing uses of the receiving bodies of water. The Texas Surface Water Quality Standards are periodically updated, with input from the public, and must be approved by the United States Environmental Protection Agency before they become effective. The Texas Surface Water Quality Standards may be found in Title 30 of the Texas Administrative Code, Chapter 307, on the web at www.sos.state.tx.us/tac/ or www.tceq.state.tx.us. If the facility is operated and maintained according to the permit, no adverse environmental effects are expected to occur.

COMMENT 11

Jay Brans expressed concern that the more than quadrupling the current rate of effluent discharge will degrade Aransas and Copano bays even more. Lynn Edwards voiced opposition to any growth in the area. Donald & Patricia Gyorog expressed concern that a second major development at Lamar Pointe would add more pollution to the bay. David Hatcher stated that once the permit is issued, one million gallons of discharge will be a minimum. Clay Jarvis and Joseph Sympson wanted a peninsula-wide solution to sewer and water problems. Graden & Jeane McVay expressed concern that two more subdivisions are developing in the area and would increase the discharge from 263,000 gallons to approximately one million gallons a day.

RESPONSE 11

The scope of the permit application is limited to the treatment and disposal of wastewater generated from the service area of the Aransas County Municipal Utility District No. 1. The draft permit that is prepared is not for the development or for other development projects, but is an authorization to discharge effluent according to the terms and conditions of the draft permit. The facility is currently permitted to discharge no more than 131,500 gallons per day and this limit applies to the Interim II phase until Final phase construction is complete. Once the Final phase construction is complete, the discharge may not exceed 263,000 gallons per day. That increase will not happen over night, but slowly over time as new connections are made to the collection system piping.

COMMENT 12

David Hatcher expressed concern about severe economic and environmental decline if severe pollution of the marine area is allowed.

RESPONSE 12

The Water Quality Standards Team has determined that existing water quality uses will not be impaired by this permit action. With an effluent set of 5 mg/l of 5-day carbonaceous biochemical oxygen demand, 5 mg/l total suspended solids, 2 mg/l ammonia nitrogen, 0.5 mg/l total phosphorus and adding a total nitrogen limit of 8 mg/l, a Tier 2 antidegradation review has determined that no significant degradation of water quality in Aransas Bay, having exceptional aquatic life use, and the ponds, having high aquatic life use, is expected. Existing uses will be maintained and protected. Therefore, the Executive Director does not expect significant pollution of Aransas Bay to occur if this draft permit is issued.

The facility is required to operate in accordance with the laws, which are protective of human health and the environment. The public may report possible violations of the permit at the statewide toll-free number 1-888-777-3186. Citizens complaints may also be filed online at www.tceq.state.tx.us/goto/report_problem.

COMMENT 13

Graden & Jeane McVay expressed concern about Goose Island State Park, the endangered whooping crane, and the contamination of crabs and oysters, which are part of the food chain for the cranes. Robin Melvin expressed concern over the impact of the discharge on natural marine breeding habitat.

RESPONSE 13

All permits meet the Texas Surface Water Quality Standards. Permits protect all existing uses, and provide protection of terrestrial and aquatic life, which would include the crabs, oysters, and cranes. Texas Parks & Wildlife has acknowledged that the draft permit addresses its concerns, primarily on nutrient limitations and direct discharge into the bay.

COMMENT 14

Graden & Jeane McVay suggested alternative discharge locations.

RESPONSE 14

The applicant proposes the discharge location. The Executive Director evaluates the effects on the uses of the receiving stream starting at the point of discharge. The Executive Director determines whether there will be an adverse impact on water quality in the receiving body of water. If the Executive Director's review shows that the proposed discharge would not meet the Texas Surface Water Quality Standards, then the Executive Director will recommend denial of an application.

COMMENT 15

Augustin Barrera, George Longoria, Paul Mercier, Bertha Oliver, Neil Richardson, Eugene Rogowicz, William Schmidt, and Anthony Valek expressed concern that the damage to Copano Bay would cause their properties to lose value. James Otto (HBPOA) expressed opposition to the draft permit and stated that the potential damage to Aransas Bay would result in damage to property values. William Schmidt (HBPOA) expressed concern that property values in Holiday beach would decline.

RESPONSE 15

Texas Water Code requires that agency to protect water quality in issuing permits for discharges into water in the state. Chapter 26 of the Water Code and applicable wastewater regulations do not authorize the agency to consider property values when reviewing a permit application.

The TCEQ Water Quality Standards Team has determined that existing water quality uses will not be impaired by this permit action. With an effluent set of 5 mg/l of 5-day carbonaceous biochemical oxygen demand, 5 mg/l total suspended solids, 2 mg/l ammonia nitrogen, 0.5 mg/l total phosphorus and adding a total nitrogen limit of 8 mg/l, a Tier 2 antidegradation review has determined that no significant degradation of water quality in Aransas Bay, having exceptional

aquatic life use, and the ponds, having high aquatic life use, is expected. Existing uses will be maintained and protected.

COMMENT 16

Donald & Patricia Gyorog and Bob & Sheralyn Humble expressed concern over possible pollution of the access channel to Aransas Bay, of the area off-shore of the Copano fishing bridge, and of the small beach between the pond and the bay at the Goose Island restoration project.

RESPONSE 16

All permits under the TPDES program are written to contain effluent limitations that protect existing uses and preclude degradation of existing water quality. The effluent limits recommended in the draft permit are designed to be protective of water quality in both Aransas Bay and Copano Bay, including the specific areas mentioned in the comment.

COMMENT 17

Donald & Patricia Gyorog would like the applicant to continue land applying the effluent. Joseph Sympson wanted the irrigation easements continued for future use.

RESPONSE 17

An applicant proposes the manner of discharging the effluent. The Executive Director evaluates the effects on the uses of the receiving stream starting at the point of discharge, and will provide the appropriate effluent limitations to protect these uses. If the Executive Director's review shows that the proposed discharge would not meet the Texas Surface Water Quality Standards, then the Executive Director will recommend denial of an application.

COMMENT 18

James Blackburn expressed concern over the impact of the proposed discharge on dissolved oxygen levels in the shallow waters adjacent to his property (approximately 0.6 mile from the outfall), and the impact of lowered dissolved oxygen levels on fish life. Neil Adams, whose property fronts Copano Bay, had the same concerns.

RESPONSE 18

A dissolved oxygen modeling analysis of the proposed discharge predicts that dissolved oxygen impacts in Aransas Bay and Copano Bay from this proposed discharge will be minimal. The effluent limits proposed in the draft permit are among the most stringent in the entire state. The proposed effluent limits are predicted to be adequate to ensure that dissolved oxygen levels will be maintained above their assigned criteria in the wetland ponds, Aransas Bay, and Copano Bay.

COMMENT 19

James Blackburn expressed concern about the bacterial and viral levels from the proposed discharge in the waters of Aransas Bay adjacent to his property from a recreational standpoint.

RESPONSE 19

The Texas Surface Water Quality Standards set out a contact recreational use for an area by using indicator types of bacteria. There are no numerical criteria in the Standards for viral concentrations. However, using indicator bacteria, the intention is that this measure would be indicative of potential contamination by feces, and thus indicate possible pathogen contamination including viral contaminations. The effluent is chlorinated and contains effluent limits for chlorine residual that ensure continued bacterial disinfection of the effluent. This provides effective control of bacteria and viruses.

COMMENT 20

James Blackburn expressed concern that "the wetland treatment ponds" would turn anaerobic and generate odors, and were too small.

RESPONSE 20

There are no wetland ponds included in the treatment of the wastewater prior to discharge. However, the two tidally influenced ponds and associated wetlands along State Highway 35 are part of the discharge route after the wastewater is released by Aransas MUD No. 1. The ponds meet the definition of water in the state and should not be confused with treatment wetlands, or polishing ponds. Treatment wetlands and polishing ponds are areas that are specifically created to be carefully isolated from other waters with the intention that standards should not apply until the point of their discharge into water in the state. The wetland areas and ponds along SH35 are protected as water in the state. Staff gave the ponds a presumed aquatic life use of high. A dissolved oxygen modeling analysis was performed on the ponds to ensure that dissolved oxygen levels would be maintained above the criterion assigned to them (4.0 mg/l) to protect the presumed high aquatic life use. The

level of treatment proposed is predicted to be adequate to ensure that this dissolved oxygen criterion will be maintained, thus precluding anaerobic conditions that could generate odors.

COMMENT 21

James Blackburn expressed concern that the submerged seagrass in the shallow bay waters adjacent to his property would be negatively impacted by the nutrients in the effluent. TPWD suggested to direct the effluent first to an emergent intertidal wetland.

RESPONSE 21

Water Quality Standards staff agrees that this was a concern with this discharge, and the antidegradation review of this permit was complex. While a Tier 1 antidegradation review preliminarily determined that existing water quality uses will not be impaired by this permit action, the more stringent Tier 2 review focused on seagrass propagation as an existing recognized use in the Texas Surface Water Quality Standards. The main degradation issue was, as Mr. Blackburn points out, seagrasses are sensitive to water column nutrient additions, especially nitrogen.

Seagrass meadows persist and grow by using nutrient recycling through the detrital food chain within the seagrass meadows, maintaining oligotrophic water column conditions. Discharges of nitrogen into the water column negates the advantage the seagrass maintains over algae. Algae are quite adept at using water column nutrients, and thus the addition of nutrients can result in increased phytoplankton growth, increased growth of epiphytes on grass blades, and increased macroalgal growth, and this can lead to seagrass decline.

Existing technology would allow the practicable removal of much of the total nitrogen from the effluent to levels that give assurance that discharges to bay ecosystems with nearby seagrass meadows would not result in damage. The discharge into existing wetlands in two tidal ponds to the southwest of State Highway 35 has advantages that stem from the idea that wetlands are not as sensitive to water column nitrogen additions, and that constructed and natural wetlands have been shown to biologically mediate the transformation of nitrogen to biomass as well as show significant rates of denitrification. Thus, a 5/5/2/1 effluent set with an 8 mg/l total nitrogen limit was determined to be protective of seagrasses at this location. The application later received and reviewed by staff proposed an interim and final effluent quality of 5/5/2/0.5 into the two ponds. This effluent set was more stringent than the 5/5/2/1 set suggested by staff, and this was considered acceptable with an 8 mg/l total nitrogen limit.

COMMENT 22

James Blackburn expressed concern that the ecosystem adjacent to his lot will be altered by the proposed discharge. He also expressed concern that the current uses of the waters of Aransas Bay would be degraded, if not destroyed.

RESPONSE 22

As set out above, a Tier 2 review was performed. Applying the antidegradation policy and implementation procedures to the proposed discharge point into the tidal ponds, a Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. With a 5/5/2/0.5 effluent set and adding a total nitrogen limit of 8 mg/l, a Tier 2 antidegradation review has preliminarily determined that no significant degradation of water quality in Aransas Bay, having exceptional aquatic life use, and the ponds, having high aquatic life use, is expected. Existing uses will be maintained and protected.

COMMENT 23

William Schmidt expressed concern over any smell that may originate from the proposed holding ponds.

RESPONSE 23

Aransas MUD No. 1 has not proposed to use any holding ponds. The proposed wastewater treatment will be an aerobic biological process. Aerobic biological processes use oxygen from the air to reduce the organic content of the wastewater through the action of microorganisms. Oxygen also turns sulfide compounds (the most common odor-causing compounds) into odorless sulfates. The reaction is direct, not dependent on microorganisms, and very rapid. Oxygen is forced through the wastewater in the same manner as in a fish aquarium, but on a larger scale. Wastewater without dissolved oxygen can produce offensive odors. The draft permit requires that the effluent contain a minimum of 5.0 mg/l dissolved oxygen. This will prevent the effluent wastewater from producing odors in the receiving bodies of water.

COMMENT 24

Neil Adams claimed that there is no impact data on how the tidal flows will affect marine wildlife. Graden McVay was concerned about the effects of winds and tides on circulation in the bays. William Schmidt expressed concern about the pollution of Copano Bay and Aransas Bay due to the prevalent winds and tides. He also added that there is very little circulation in Copano Bay.

RESPONSE 24

A dissolved oxygen modeling analysis of the proposed discharge indicated that dissolved oxygen impacts in Aransas Bay and Copano Bay from this discharge are predicted to be minimal. The effluent limits proposed in the draft permit are among the most stringent in the entire state. The proposed effluent limits are predicted to be adequate to ensure that dissolved oxygen levels will be

maintained above their designated criteria in both bays. Because of the size of the discharge and the very stringent effluent limits proposed in the draft permit, dissolved oxygen impacts beyond the wetland ponds are predicted to be minimal. Therefore, local bay circulation is not predicted to have a significant effect on dissolved oxygen impacts resulting from this proposed discharge.

COMMENT 25

Jane Wicker stated that the amendment application referred to the disposal of fluid wastes from the Lamar Water Treatment Plant.

RESPONSE 25

The existing wastewater treatment facility serves the Goose Island Estates Park Subdivision and Goose Island State Park. The proposed wastewater treatment facility will also serve the Lamar Water Supply Corporation service area and the Lamar Pointe Subdivision. The proposed facility is not the Lamar Water Treatment Plant. Aransas MUD No. 1 requested and obtained authorization to accept reverse osmosis water treatment plant reject water into the sewer line. Reverse osmosis is the typical method of treating water in private home use, i.e., the type of filter unit fitted on the kitchen faucet. This wastewater from the water treatment plant will not have a negative effect on the operation of the wastewater treatment plant or the quality of the effluent.

COMMENT 26

David Gill stated that the original discharge permit lapsed or expired in September 1999. Jane Wicker stated that the district has been allowed to operate without a permit for years and to discharge raw sewage into Aransas Bay.

RESPONSE 26

Aransas County Municipal Utility District No. 1 was first issued a permit to dispose treated wastewater via irrigation on October 22, 1974. The permit was renewed or amended continuously since then without interruption. The permit was last amended on August 26, 2002, with an expiration date of March 1, 2005. A timely renewal application was filed on August 9, 2004. This renewal application was subsequently replaced by an application for a major amendment to increase flow and request authorization to discharge to a receiving body of water. TCEQ rules state that, when a renewal or amendment application is timely received, the existing permit will remain in full force and effect and will not expire until commission action on the application is final. Aransas MUD No. 1 has been continuously operating with a valid permit to dispose treated wastewater via irrigation. Aransas MUD No. 1 has never been authorized to discharge any wastewater to any water

in the state. Aransas MUD No. 1's compliance history does not indicate any discharge from its facility to water in the state.

COMMENT 27

Jane Wicker asked why the applicant wanted to use the two ponds to discharge effluent into and how would it be accomplished.

RESPONSE 27

Aransas MUD No. 1 intends to pump the treated wastewater from the proposed wastewater treatment facility through an 8-inch pipe to discharge to the first pond. Aransas MUD No. 1 worked in coordination with the Texas Parks and Wildlife Department (TPWD). TPWD explains that "the use of wetlands [as a discharge route] would allow emergent wetland plants and the epiphytes living on them to utilize nutrients from the effluent, improving the quality of the discharge." Furthermore, the additional detention time in the two ponds will provide polishing of the effluent, allowing more time for the oxygen-demanding substances in the wastewater to be broken down and assimilated by natural processes, prior to the discharge entering the bays.

However, despite the fact that the two ponds will improve the quality of water entering Aransas Bay, the effluent limits in the draft permit were designed to be protective as if the wastewater were discharged directly to the bay. If the ponds had been considered to be treatment ponds, they would have no protection under the Texas Surface Water Quality Standards. By requiring complete treatment before discharge to the ponds, they are protected as water in the state.

COMMENT 28

Barbara & Wesley Howe stated that the applicant had told them about relocating the plant. Jane Wicker stated that there is no mention about how the treatment plant will be acquired, where will it be installed and the timeline for installation.

RESPONSE 28

In its permit amendment application received in 2006, Aransas MUD No. 1 estimated that the proposed Interim II phase for a daily average flow 0.1315 million gallons per day (MGD) would be constructed in July 2008 and disposal of effluent would commence in December 2008. The Final phase for a daily average flow of 0.263 MGD was estimated to be constructed on January 2013 and disposal of effluent was estimated to commence in July 2013. However, TCEQ rules prohibit construction of the new Interim II phase unless the current draft permit is approved and issued.

The revised application submitted in late 2007 proposed to construct a new wastewater treatment facility beside and towards the northeast of the existing facility, which changes the buffer

zone from what was originally proposed and publicly noticed. The new location of the proposed wastewater treatment facility can be viewed in the application located at the Aransas County Navigation District No. 1 Office, 911 Navigation Circle, Rockport, Texas or the TCEQ Office of the Chief Clerk, first floor, Building F, 12100 Park 35 Circle, Austin, Texas 78753.

The manner of acquisition of the wastewater treatment plant or its components is not required to be addressed in a permit application.

COMMENT 29

Barbara & Wesley Howe complained about the easement that the applicant is requesting from their property on South Lake Drive.

RESPONSE 29

By moving the proposed wastewater treatment facility towards the northeast of the existing facility, the buffer zone will no longer encompass the properties along the South Lake Drive, as it previously did.

COMMENT 30

Barbara & Wesley Howe asked when the rule requiring a buffer zone easement from all owners of property that lies within 150 feet of the treatment facilities was adopted.

RESPONSE 30

The buffer zone requirements have been in effect since March 19, 1990. However, existing facilities that renewed their permits without change or amended their permits in a way that new construction was not necessary were exempted from complying with the rule. Now that Aransas MUD No. 1 intends to construct new facilities, it is required to comply with the buffer zone requirements.

COMMENT 31

Neil Adams, Richard Adams, Kenneth Ballard, Emil Broz, Richard Caldwell, Stephen Carleton, Jim Collins, Pam Collins, Keren Dotson, Mrs. Davis C. Edwards, Lynn Edwards, Robert Edwards, George Foulds, David Gill, Robert Gordon, Marjorie Greeson, Mrs. John Grimaudo, Bett Hediger, Beth Hester, C. F. Hooker, Zella Hunt, Marshal & Victoria Lightman, Thomas McChesney, Graden McVay, Jean McVay, Allan Middleton, Robert Nelson, Patrick Pollok, W. R. Raney, Delores

Rogowicz, Eugene Rogowicz, Diana Sebastian, Sandra Sloop, Dwight Taylor, Linda Taylor, and Jim Turner claimed that the applicant's poor operation resulted in periodic odor problems.

RESPONSE 31

The compliance history of this facility since June 30, 2001 (starting five years prior to submitting the application), indicates one notice of violation issued to Aransas MUD No. 1 on October 1, 2004. The violation referred to a failure to design and manage irrigation practices so as to prevent the ponding of effluent. The TCEQ Investigation Report indicates that the violation was resolved when Aransas MUD No. 1 submitted a letter indicating that 80 loads of dirt was added to the 12.681-acre tract of land. The information was verified by a TCEQ Region 14 Comprehensive Compliance Investigation conducted on April 14, 2005. For the stated compliance history period, no odor problem has been reported to the TCEQ.

The public may report possible permit violations by calling the TCEQ Region 14 office in Corpus Christi at 361-825-3100, or the statewide toll-free number at 1-888-777-3186. Citizens complaints may also be filed online at www.tceq.state.tx.us/goto/report_problem.

COMMENT 32

Neil Adams, Richard Adams, Kenneth Ballard, Emil Broz, Richard Caldwell, Stephen Carleton, Jim Collins, Pam Collins, Keren Dotson, Mrs. Davis C. Edwards, Lynn Edwards, Robert Edwards, George Foulds, David Gill, Robert Gordon, Marjorie Greeson, Mrs. John Grimaudo, Bett Hediger, Beth Hester, C. F. Hooker, Zella Hunt, Marshal & Victoria Lightman, Thomas McChesney, Graden McVay, Jean McVay, Allan Middleton, Robert Nelson, Patrick Pollok, W. R. Raney, Delores Rogowicz, Eugene Rogowicz, Diana Sebastian, Sandra Sloop, Dwight Taylor, Linda Taylor, and Jim Turner claimed that the permit application was for non-existent developments.

RESPONSE 32

Aransas MUD No. 1 stated in its application that "since 1994 more than 25 new homes have been built in the District, and more than 40 new recreational lots have been added by seasonal customers." Aransas MUD No. 1 further mentioned that it had been approached by the developer of Lamar Pointe Preserve for utility service to a new community adjacent to Goose Island Lake Estates. Aransas MUD No. 1 also indicated that it had contracted with the developer within Lamar WSC's service area for immediate and future wastewater service.

COMMENT 33

Neil Adams, Richard Adams, Kenneth Ballard, Emil Broz, Richard Caldwell, Stephen Carleton, Jim Collins, Pam Collins, Keren Dotson, Mrs. Davis C. Edwards, Lynn Edwards, Robert

Edwards, George Foulds, David Gill, Robert Gordon, Marjorie Greeson, Mrs. John Grimaudo, Bett Hediger, Beth Hester, C. F. Hooker, Zella Hunt, Marshal & Victoria Lightman, Thomas McChesney, Graden McVay, Jean McVay, Allan Middleton, Robert Nelson, Patrick Pollok, W. R. Raney, Delores Rogowicz, Eugene Rogowicz, Diana Sebastian, Sandra Sloop, Dwight Taylor, Linda Taylor, and Jim Turner asked the TCEQ to require an alternate disposal method. Augustin Barrera, George Longoria, Paul Mercier, Bertha Oliver, Neil Richardson, Eugene Rogowicz, William Schmidt, and Anthony Valek suggested land application of the effluent. H. Dickson Hoese suggested the Copano Bay wetlands south of Holiday Beach would be a preferable part of the discharge route. Clay Jarvis and Corina Domaschk asked how many alternatives had been considered. Thomas McChesney would prefer another discharge point. William Schmidt (HBPOA) suggested that land application of effluent is a better method of disposal of the effluent. TPWD suggested that the applicant consider surface application and other disposal alternatives rather than direct discharge to Aransas Bay.

RESPONSE 33

TCEQ does not require an applicant to propose alternative discharge locations, alternative technology, or alternative disposal methods. TCEQ evaluates the discharge location proposed by an applicant and fashions a draft permit protective of human health, safety, the environment, and existing uses of the receiving body of water. TCEQ then evaluates the treatment type and disposal method proposed in the application to determine whether the proposed facility can meet the criteria and limitations in the draft permit. Sometimes that may lead an applicant to consider alternative technology or disposal methods, but most times any engineering problems have already been considered and addressed in the initial application.

COMMENT 34

Neil Adams, Richard Adams, Kenneth Ballard, Emil Broz, Richard Caldwell, Stephen Carleton, Jim Collins, Pam Collins, Keren Dotson, Mrs. Davis C. Edwards, Lynn Edwards, Robert Edwards, George Foulds, David Gill, Robert Gordon, Marjorie Greeson, Mrs. John Grimaudo, Bett Hediger, Beth Hester, C. F. Hooker, Zella Hunt, Marshal & Victoria Lightman, Thomas McChesney, Graden McVay, Jean McVay, Allan Middleton, Robert Nelson, Patrick Pollok, W. R. Raney, Delores Rogowicz, Eugene Rogowicz, Diana Sebastian, Sandra Sloop, Dwight Taylor, Linda Taylor, and Jim Turner asked the TCEQ to incorporate the most restrictive parameters in an issued permit.

RESPONSE 34

The draft permit contains some of the most restrictive and stringent effluent limitations of any wastewater permit issued by TCEQ.

By way of comparison, the Edwards Aquifer stretches from Waco to Del Rio. It is the sole source of drinking water for many communities, including the City of San Antonio. The Texas Surface Water Quality Standards impose one of the most stringent effluent limitations on wastewater

discharges to surface water within five miles upstream of the Edwards Aquifer Recharge Zone. The effluent limits for wastewater discharges affected by the Edwards Aquifer limitations are shown below compared with the draft permit for Aransas MUD No. 1:

Parameter	Edwards Aquifer limits	Aransas MUD No. 1 draft permit
5-day carbonaceous biochemical oxygen demand	5 mg/l	5 mg/l
total suspended solids	5 mg/l	5 mg/l
ammonia-nitrogen	2 mg/l	2 mg/l
total phosphorus	1 mg/l	0.5 mg/l
total nitrogen	none	8 mg/l
minimum dissolved oxygen	none	5 mg/l

The draft permit is more stringent than a permit issued within five miles upstream from the Edwards Aquifer Recharge Zone in its limits on total phosphorus, total nitrogen, and minimum dissolved oxygen.

COMMENT 35

David Gill suggested that the plant be required to operate at least one year in full compliance with TCEQ and other agencies at the current permit conditions.

RESPONSE 35

The compliance history of this facility since June 30, 2001 (starting five years prior to submitting the application), indicates one notice of violation issued to Aransas MUD No. 1 on October 1, 2004. The violation referred to a failure to design and manage irrigation practices so as to prevent the ponding of effluent. The TCEQ Investigation Report indicates that the violation was resolved when Aransas MUD No. 1 submitted a letter indicating that 80 loads of dirt was added to the 12.681-acre tract of land. The information was verified by a TCEQ Region 14 Comprehensive Compliance Investigation conducted on April 14, 2005.

COMMENT 36

Robin Melvin recommended that if permits authorizing the discharge of treated wastewater in the vicinity of Texas bays and estuaries are ever issued, they should be required to be discharged to a natural or constructed emergent wetland as the draft permit does, and have similar effluent limits. TPWD recommended an effluent set of 5 mg/l carbonaceous biochemical oxygen demand (5-day), 5 mg/l total suspended solids, 2 mg/l ammonia-nitrogen, and 0.5 mg/l total phosphorus.

RESPONSE 36

The effluent limits in the draft permit are identical to the effluent limits recommended by TPWD. The effluent limitations in the interim and final phases of the draft permit, based on a 30-day average, are 5 mg/l 5-day carbonaceous biochemical oxygen demand, 5 mg/l total suspended solids, 2 mg/l ammonia-nitrogen, 0.5 total phosphorus, 8.0 mg/l total nitrogen, and 5.0 mg/l minimum dissolved oxygen. The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes based on peak flow.

The recommendation by Mr. Melvin is noted. It should be added that permit applications are evaluated on a case-by-case basis.

COMMENT 37

TPWD recommended tertiary treatment.

RESPONSE 37

The proposed treatment includes chemical precipitation for phosphorus removal, a biological process providing an anoxic zone for nitrogen removal, and a membrane bio-reactor for stabilization of organic matter and solids removal. All of these treatments are beyond that provided by the conventional secondary treatment process.

COMMENT 38

TPWD recommended twice per week monitoring to include fecal coliform if the effluent is ultimately discharged directly to Aransas Bay, Copano Bay, or St. Charles Bay.

RESPONSE 38

The effluent is not discharged directly to Aransas Bay, Copano Bay, or St. Charles Bay. The monitoring frequency is once per week for 5-day carbonaceous biochemical oxygen demand, total suspended solids, ammonia-nitrogen, total phosphorus, total nitrogen, and dissolved oxygen, and five times per week for flow.

COMMENT 39

TPWD noted that the draft permit contains nutrient limitations and includes discharge into wetland ponds, and concluded that these provisions will help protect aquatic resources in the area.

RESPONSE 39

The Executive Director acknowledges this comment.

COMMENT 40

Augustin Barrera, George Longoria, Paul Mercier, Bertha Oliver, Neil Richardson, Eugene Rogowicz, William Schmidt, and Anthony Valek expressed concern that the discharge could cause damage to the recreational use of Copano Bay, particularly with respect to bacteria, citing the influence of southeast winds and currents. David Gill stated that Copano Bay was only 100 yards from the proposed discharge and inquired how would contaminants be kept out of Copano Bay. William Schmidt (HBPOA) expressed concern about the absence of study on the impact of the effluent on Copano Bay.

RESPONSE 40

The discharge ultimately flows into Aransas Bay, in Segment No. 2471, not nearby Copano Bay, and formal review was limited to Aransas Bay following the Procedures to Implement the Texas Surface Water Quality Standards (January 2003). Applying the antidegradation policy and implementation procedures to Aransas MUD No. 1's proposed discharge point into the tidal ponds in Section 307.5 of the rules and the TCEQ implementation procedures, a Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. A Tier 2 review was performed for the proposed discharge location. With a 5/5/2/0.5 effluent set and adding a total nitrogen limit of 8 mg/l, a Tier 2 antidegradation review has preliminarily determined that no significant degradation of water quality in Aransas Bay, having exceptional aquatic life use, and the ponds, having high aquatic life use, is expected. Existing uses will be maintained and protected. Due to the protection of Aransas Bay, the discharge would also

result in no significant degradation of water quality in other nearby water bodies, and existing uses will be maintained and protected in those water bodies as well, including Copano Bay.

The effluent limits recommended in the draft permit are designed to be protective of water quality in both Aransas Bay and Copano Bay. Aransas Bay and Copano Bay have generally the same criteria. Effluent limits assigned to be protective of Aransas Bay, the nearer of the two bays, are also protective of Copano Bay. Because of the size of the discharge and the very stringent effluent limits proposed in the draft permit, dissolved oxygen impacts beyond the wetland ponds are predicted to be minimal.

COMMENT 41

Augustin Barrera, George Longoria, Paul Mercier, Bertha Oliver, Neil Richardson, Eugene Rogowicz, William Schmidt, and Anthony Valek expressed concern that plant failure would cause foul odor to be detected in their properties.

RESPONSE 41

Aransas MUD No. 1 will provide the required buffer zone to abate and control a nuisance of odor. In addition, Aransas MUD No. 1 proposes to provide emergency alarms for, among others, failure of the blower to start, and power outage.

The draft permit requires that the permittee be responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, or retention of inadequately treated wastewater.

COMMENT 42

David Gill was concerned because he disagrees with the volume of the" final polishing pond." William Schmidt (HBPOA) cited the lack of information on the size of the discharge ponds.

RESPONSE 42

From measurements of aerial imagery, the surface area of the north (first) pond is approximately 1.0 acre. The surface area of the south (second) pond is approximately 3.25 acres. Based on information from Aransas MUD No. 1, average depth of each pond was estimated to be approximately 1.5 feet, resulting in volumes of approximately 65,300 cubic feet and 212,300 cubic feet, respectively.

COMMENT 43

Steven Clamon asked who will test for microbial and chemical contaminants.

RESPONSE 43

There is no test for microbial contaminant, i.e., fecal coliform, because the effluent will be disinfected by means of chlorination. Instead, chlorine residual will be monitored. The draft permit requires that the permittee conducts effluent sampling and report results in accordance with TCEQ rules, which specify, among other things, the sampling and laboratory testing methods and quality assurance requirements of the sampling and reporting.

COMMENT 44

Steven Clamon asked how often will the test be performed.

RESPONSE 44

The monitoring frequency is once per week for 5-day carbonaceous biochemical oxygen demand, total suspended solids, ammonia-nitrogen, total phosphorus, total nitrogen, and dissolved oxygen, and five per week for flow. The effluent shall contain a chlorine residual, which shall be monitored five times per week. The monitoring frequencies are based on the self-monitoring schedule required by TCEQ rules.

COMMENT 45

Steven Clamon asked where will the solids be disposed.

RESPONSE 45

Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ permitted landfill and land application sites, Texas Sludge Disposal, Inc. in San Patricio County. The draft permit authorizes the disposal of sludge at a TCEQ authorized land application site or co-disposal landfill.

COMMENT 46

Steven Clamon asked whether an environmental study on the chemicals being used had been performed. Lynn Edwards was concerned that chemicals used by the wastewater discharge plant would be a significant amount of the discharge.

RESPONSE 46

The existing plant uses chlorination for disinfection as allowed by TCEQ rules. The rules also require that the maximum chlorine residual in any discharge shall in no event be greater than four mg/l per grab sample to protect aquatic life in the receiving body of water.

COMMENT 47

Steven Clamon asked what are the long-term effects of alum and chlorides.

RESPONSE 47

It has been reported that aluminum sulfate, commonly known as alum, is the most important coagulating agent in water treatment. Most public drinking water supply systems add alum to reduce turbidity. Concerns over alum could be related to aluminum in the dissolved form. Literature indicates that long-term exposure of patients to dialysis water high in aluminum may cause a defect of the brain and/or bone mineralization. Aluminum has also been suggested as a cause of Alzheimers disease, though it is stated that it is unclear if the aluminum leads to this disease or if it is that the disease causes brain tissue to retain aluminum secondarily. Thus, Agriculture and Agri-Food Canada concludes that long term risks of aluminum use are as of yet uncertain. It was also reported that aluminum affects fish by accumulating in the gills and clog the gills with a slimy layer, which limits breathing.

The most common chloride naturally occurring at the discharge location is simply sodium chloride, or table salt. Wikipedia explains that chloride is a chemical that the body needs for metabolism.

In the Texas Surface Water Quality Standards, there is no water quality criterion for aluminum for human health protection; but, there is a criterion for the protection of aquatic life. There are no water quality criteria for chloride.

COMMENT 48

Steven Clamon asked about the back-up or alarm system on the chemical injection system.

RESPONSE 48

Aransas MUD No. 1 has proposed alarms for high or low chlorine residual and chlorine gas detector. The alarms will be connected to an auto-dialer.

COMMENT 49

Steven Clamon asked how good the system is in removing nitrates.

RESPONSE 49

The proposed process for biological nitrogen removal (BNR) is an aerobic zone followed by an anoxic zone, where oxidation of ammonia to nitrate occurs in the aerobic environment and the reduction of nitrate to nitrogen gas (denitrification) occurs in the anoxic environment. With proper design, this BNR process has been reported to achieve levels of less than 10 mg/l total nitrogen in the effluent.

COMMENT 50

Neil Adams expressed concern that the application does not have technical data on how public health, safety and state waters will be protected.

RESPONSE 50

The application provides the information necessary for the Commission staff to evaluate wastewater generation, the ability of the proposed technology to treat and dispose of the wastewater, the resulting effluent, and the receiving body of water and to make a determination or recommendation whether or not the application complies with the Commission rules, policies, and EPA guidelines to protect human health, safety and the environment. After staff performs this extensive technical review, the Executive Director prepares a draft permit that is intended to protect water quality and comply with all state regulations.

COMMENT 51

Neil Adams claimed that the draft permit authorizes more wastewater than what will be produced. David Gill requested a clarification on the flow authorized in the draft permit, 243,000 gallons per day or 263,000 gallons per day and how was the flow authorized.

RESPONSE 51

The flows authorized in the draft permit are based on estimated growth and wastewater generation projections provided in the permit application with sufficient design consideration. The total estimated flow to be serviced is approximately 250,000 gallons per day (gpd). The daily average flow authorized in the draft permit will be the basis of sizing the wastewater treatment facility. A design flow of 263,000 gpd provides a buffer for flow and load variations. The draft permit requires that whenever flow measurements for any domestic sewage treatment facility reach 75 percent of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion or upgrading of the domestic wastewater treatment or collection facilities. Whenever the flow reaches 90 percent of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment or collection facilities. The requested flow will provide enough capacity to allow evaluation of flows for planning purposes. By proposing a flow of 263,000 gpd, Aransas MUD No. 1 projects that planning for expansion or upgrading of the wastewater treatment facility will not occur until around 2014, while the construction of additional facilities will not occur until around 2017.

COMMENT 52

Dohn Larson stated that the proposed wastewater system is state of the art in name only.

RESPONSE 52

The proposed wastewater treatment technology, membrane bioreactor (MBR), is a combination of the activated sludge process and membrane separation. It is acknowledged as a recent development in wastewater treatment by Metcalf & Eddy, Inc., Tchobanoglous, Burton and Stensel (2003) and Judd (2006), as well as other wastewater treatment process designers and facility manufacturers.

COMMENT 53

Dohn Larson stated that the project has not been sufficiently studied and its negative impacts underestimated.

RESPONSE 53

The TCEQ Water Quality Standards Team has determined that existing water quality uses will not be impaired by this permit action. With effluent limitations of 5 mg/l 5-day carbonaceous

biological oxygen demand, 5 mg/l total suspended solids, 2 mg/l ammonia-nitrogen, 0.5 mg/l total phosphorus, and adding a total nitrogen limit of 8 mg/l, a Tier 2 antidegradation review has determined that no significant degradation of water quality in Aransas Bay, having exceptional aquatic life use, and the ponds, having high aquatic life use, is expected. Existing uses will be maintained and protected.

The TCEQ Water Quality Assessment Team evaluated Aransas MUD No. 1's proposed effluent limits to ensure that dissolved oxygen levels in the ponds and the bays would be maintained above their designated criteria. Based on model results, the proposed effluent limits are predicted to be adequate for both flow phases to ensure that dissolved oxygen concentrations in the ponds will be maintained above their designated criteria. Beyond the ponds, concentrations of oxygen-demanding constituents entering Aransas Bay (and, potentially, subsequently Copano Bay) following the period of detention in the two ponds are predicted to be at levels low enough that they would not result in any significant impact on dissolved oxygen levels in the bays.

COMMENT 54

The Texas Department of Transportation (TxDOT) objected to the use of the two ponds that are within TxDOT's right-of-way because (1) it is the District's practice not to allow the discharge of effluent into right-of-way that is owned by the TxDOT District; (2) TxDOT would like to keep its currently unregulated discharge of storm water runoff separated from the MUD's proposed discharge of effluent in that location; and (3) TxDOT has concerns that the MUD's plans may limit the options for the future replacement of the Copano Bay Bridge.

RESPONSE 54

The water in the ponds meets the statutory definition of water in the state. The TCEQ is authorized to issue permits for the discharge of treated wastewater into water in the state.

COMMENT 55

H. Dickson Hoese inquired to what extent has the local bay circulation been taken into account.

RESPONSE 55

Because of the size of the discharge and the very stringent effluent limits proposed in the draft permit, dissolved oxygen impacts beyond the wetland ponds are predicted to be minimal. Therefore, local bay circulation is not predicted to have a significant effect on dissolved oxygen impacts resulting from this proposed discharge.

COMMENT 56

H. Dickson Hoese stated that the effluent ponds appear eutrophic.

RESPONSE 56

There are no effluent ponds listed in the discharge route. The discharge route includes a series of two unnamed tidally influenced ponds. The water in the ponds meets the statutory definition of water in the state, and Water Quality Standards were applied. A dissolved oxygen modeling analysis was performed on the ponds to ensure that dissolved oxygen levels would be maintained above the criterion assigned to them (4.0 mg/l) to protect the presumed high aquatic life use. While the Executive Director has no direct sampling data whether the ponds are actually eutrophic, the stringent effluent limitations, including the very low 0.5 mg/l phosphorus limit, is not expected to adversely affect the water quality in the ponds.

COMMENT 57

David Gill was concerned because the discharge cannot be monitored at the point where it enters public waters where Mr. Gill and his family enter the water.

RESPONSE 57

The treated effluent will be discharged to a series of two unnamed ponds along State Highway 35; and from there to Aransas Bay. The draft permit requires that sampling points must be readily accessible and that effluent monitoring samples shall be taken following the final treatment unit. Consequently, an accessible sampling point can be established before the effluent is discharged into the ponds. It should also be noted that the effluent will be sampled, and must comply with the effluent limitations in the draft permit, without any dilution from the receiving body of water.

COMMENT 58

David Gill was concerned because the final discharge point of the effluent cannot be secured from the general public contending that he will be endangered if any vandalism, acts of malicious intent or malfunction of equipment occur.

RESPONSE 58

Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, including providing the results of effluent monitoring for compliance with effluent limits. Consequently, it will be the responsibility of the permittee to secure the treatment plant and the location of the sampling location so that a sample can be consistently taken at that location for compliance monitoring.

COMMENT 59

David Gill was concerned because no review of rainwater, runoff or foreign contaminates are accounted for in the proposed permit.

RESPONSE 59

The permitting process falls under the federal NPDES program, as delegated to the State of Texas, requiring facilities that discharge pollutants from any point source into water in the state to obtain a permit. Thus, the application and the corresponding review are based on the proposed wastewater discharge in the permit application and the effect on the quality of the receiving body of water, and do not include any consideration of dilution due to rainwater or runoff.

COMMENT 60

David Gill was concerned because he claims that the draft permit allows 4015 lbs. biological oxygen demand per year or 20,015 lbs. over five years, 4015 lbs. total suspended solids per year or 20,015 lbs. over five years, 1606 lbs. ammonia-nitrogen per year or 8030 lbs. over five years and 401.5 lbs. total phosphorus or 2007.5 lbs. over five years. Mr. Gill claims that these pollutants will cause serious health problems to him and his family and will eliminate sea grass growth, any oyster, shrimp or crab harvesting, health concerns of the fish taken and consumed.

RESPONSE 60

The indicated figures are daily average mass-based loadings calculated by multiplying the daily average flow in the Final phase in million gallons per day, 0.263, by the respective concentration in mg/l, and multiplying the result by 8.34 (in order to convert milligrams to pounds and gallons to liters). The results, in lbs/day, are then multiplied by 365 and extrapolated to five years.

It should be noted that biological oxygen demand, ammonia, and phosphorus undergo biochemical transformation in an aquatic environment. Specifically, organic matter, represented by

biological oxygen demand, can be oxidized biologically to simple end products and additional biomass. In an aerobic (i.e., presence of dissolved oxygen) biological oxidation of organic matter, the end products are essentially new cells, carbon dioxide and water. Ammonia and phosphate are nutrients needed for the oxidation of the organic matter to the indicated end products.

Using mass loads to represent the indicated constituents in the receiving stream and discharge is physically inaccurate because biological oxygen demand, total suspended solids, ammonia and phosphorus are not discharged as slugs or batches, but are dispersed in the effluent and the receiving body of water. Consequently, they are measured and monitored in concentration units, i.e., mg/l.

There is no quantitative criterion for total suspended solids in Texas; however, the rule states that "surface water shall be essentially free of floating debris and suspended solids that are conducive to producing adverse responses in aquatic organisms or putrescible sludge deposits or sediment layers which adversely affect benthic biota or any lawful uses." The draft permit requires a total suspended solids effluent limit of 5 mg/l, which is also the allowable total suspended solids limit for discharges that would be permitted upstream of the Edwards Aquifer Recharge Zone.

The Texas Surface Water Quality Standards do set numerical criteria on some constituents that are related to the above compounds. For example, maintenance of dissolved oxygen is set out in the TSWQS for a particular water body, and this is directly related to the biological oxygen demand loading and mixing, but the projection of oxygen levels during discharge is done by numerical modeling, as are projections of ammonia nitrogen levels. Other constituents, such as total suspended solids or nutrients, are in the General Criteria of the TSWQS where it is stated that waste discharges shall not cause substantial or persistent changes from ambient conditions of turbidity or color, or shall not cause excessive growth of aquatic vegetation, but there are no numerical criteria. It is also stated in the Standards that permits shall contain effluent limitations to protect existing uses, which in this case include sea grass propagation, oyster waters, contact recreation, and sustainable fishery.

COMMENT 61

David Gill requested to know the size of the wetland and the retention time to ensure proper polishing. He questioned whether the discharge would be batch or constant rate per hour. Mr. Gill wanted to know how would overflowing be prevented, if the flow is batch. Mr. Gill wanted to know whether a flow control valve or an orifice would be installed to ensure proper polishing.

RESPONSE 61

The ponds are not a part of the treatment process, but a part of the discharge route. They are protected like any other water in the state of Texas. Consequently, they were not evaluated to conform to certain process design criteria for wastewater treatment. The polishing that will occur in the ponds is beneficial to the quality of the wastewater, but it is not necessary to ensure that existing uses will be maintained and protected.

COMMENT 62

David Gill wanted to know whether the forced sewer main to the sewage plant is the same line to discharge into the pond after treatment.

RESPONSE 62

The sewer line carrying untreated wastewater to the plant is not the same as the discharge line carrying treated wastewater from the plant. It is not physically possible. Treated wastewater may not be contaminated with untreated wastewater. That would be a violation of the effluent limits in the draft permit.

COMMENT 63

David Gill recommended a study of the new permit to include the impact of freshwater algae growth on marine life, the impact on wildlife, the impact on water fowl, the impact of additional heavy metals, oil, ethylene glycol, etc. from rainwater washing of the additional concrete and surrounding areas, and the impact of nutrients not removed from the treatment.

RESPONSE 63

Storm drains carrying rainwater runoff should not be directed to a municipal wastewater treatment plant. TCEQ's storm water rules and storm water permits address the prevention of pollution before storm water enters storm water drains.

The TCEQ Water Quality Standards Team has determined that existing water quality uses will not be impaired by this permit action. With an effluent set of 5 mg/l 5-day biological oxygen demand, 5 mg/l total suspended solids, 2 mg/l ammonia-nitrogen, 0.5 mg/l total phosphorus and adding a total nitrogen limit of 8 mg/l, a Tier 2 antidegradation review has determined that no significant degradation of water quality in Aransas Bay, having exceptional aquatic life use, and the ponds, having high aquatic life use, is expected. Existing uses will be maintained and protected.

The TCEQ Water Quality Assessment Team evaluated Aransas MUD No. 1's proposed effluent limits to ensure that dissolved oxygen levels in the ponds and the bays would be maintained above their designated criteria. Based on model results, the proposed effluent limits are predicted to be adequate for both flow phases to ensure that dissolved oxygen concentrations in the ponds will be maintained above their designated criteria. Beyond the ponds, concentrations of oxygen-demanding constituents entering Aransas Bay (and, potentially, subsequently Copano Bay) following the period of detention in the two ponds are predicted to be at levels low enough that they would not result in any significant impact on dissolved oxygen levels in the bays.

The permitting process falls under the federal NPDES program, as delegated to the State of Texas, requiring facilities that discharge pollutants from any point source into waters in the state to obtain a permit. Thus, the application and the corresponding review are based on the proposed

wastewater discharge in the permit application and the effect on the quality of the receiving body of water, and do not include rainwater, runoff or foreign contaminants. The proposed wastewater to be discharged is essentially domestic in nature and is unlikely to include heavy metals, oil,or ethylene glycol, which could be expected from an industrial wastewater. The Executive Director does not consider the impact of non-point source pollution from developments served by the wastewater treatment plant.

COMMENT 64

David Gill requested a full environmental assessment study.

RESPONSE 64

The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. To meet this requirement, federal agencies must prepare detailed statements known as an Environmental Impact Statements (EISs). The Executive Director's staff have thoroughly reviewed this application and prepared a draft permit that complies with federal and state regulations developed to protect the environment.

Since the issuance of this permit is a state, not a federal, action an EIS is not required.

COMMENT 65

David Gill asked what is the limit of fecal coliform allowed.

RESPONSE 65

There is no fecal coliform limits in the draft permit because the effluent will be disinfected by means of chlorination. Instead, the draft permit requires that the effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes (based on peak flow). This technology is effective in reducing bacteria levels to protect human life.

COMMENT 66

David Gill stated that the draft permit allows the applicant to increase discharge rates without another public hearing being required. David Gill inquired whether TCEQ believes that all sewage should be put into bays.

RESPONSE 66

Once a permit is issued, the discharge rate cannot be increased without applying for a major amendment to the permit. Major amendments are subject to full public comment and opportunity for a contested case hearing.

It is the policy of the state "to maintain the quality of water in the state consistent with the public health and enjoyment, ..." The goal of TCEQ is clean air, clean water, and the safe management of waste.

COMMENT 67

David Gill had concerns about the loss of seagrass.

RESPONSE 67

Water Quality Standards Team agrees that this was a concern with this discharge to bay ecosystems containing seagrasses. Thus, the antidegradation review of this permit centered around this concern. While a Tier 1 antidegradation review could preliminarily determine that existing water quality uses will not be impaired by this permit action, discussions centered on the more stringent Tier 2 review, as seagrass propagation is an existing recognized use in the Texas Surface Water Quality Standards. The vital point is the long term general concern with these types of discharges.

Seagrasses support a diverse aquatic community, and provide nursery, foraging, and refuge habitats for important marine fishery resources. However, the important point for a TPDES permit application review is that seagrasses have been shown to be quite sensitive to nutrient additions, especially nitrogen. Seagrass meadows grow by using nutrient recycling through the detrital food chain within the seagrass meadows, while maintaining oligotrophic water column conditions. This allows the seagrass to maintain a competitive advantage over micro- and macro-algae that cannot use these recycled nutrients as effectively. When additional nutrients, especially nitrogen, are added to the system it negates the advantage the seagrass maintains over the algae. The algae are much better adept at using water column nutrients, and thus the addition of nutrients results in increased phytoplankton growth, increases the growth of epiphytes on grass blades, and macro-algal growth. This then allows the algae to out-compete the seagrasses and invade the seagrass beds. Over time this can result in seagrass losses.

Unfortunately, seagrass beds typically stabilize shallow estuarine sediments in these areas, and thus turbidity usually increases in the area after seagrass loss. The increases in turbidity can likely result in lost beds not being naturally recovered, and may lead to the loss of additional beds due to smothering. Other US coastline states have done extensive research on municipal discharges in similar areas with these sensitive resources and have adopted stringent protective limits to protect those resources.

To address this situation, the draft permit provides for the discharge into existing wetlands in two tidally influenced ponds to the southwest of State Highway 35. This discharge point's

advantages stem from the idea that wetlands are not as sensitive to water column nitrogen additions, and that constructed and natural wetlands have been shown to biologically mediate the transformation of nitrogen to biomass as well as show significant rates of denitrification. To provide further protection for the sea grasses, the draft permit requires the very stringent discharge set of 5/5/2/0.5 and requires the Aransas MUD to treat the effluent to achieve a total nitrogen limit of 8 mg/l.

COMMENT 68

David Gill inquired about the impact to whooping cranes that feed along the shores of the discharge site.

RESPONSE 68

The Texas Surface Water Quality Standards state that discharges shall not cause surface waters to be toxic to terrestrial or aquatic life, or the consumption of aquatic organisms.

COMMENT 69

David Gill inquired whether TCEQ would require continuous monitoring of the effluent and how often would TCEQ check the discharge.

RESPONSE 69

The draft permit requires a monitoring frequency of once per week for 5-day carbonaceous biochemical oxygen demand, total suspended solids, ammonia nitrogen, total phosphorus, total nitrogen, and dissolved oxygen, and five times per week for flow. The TCEQ regional office conducts compliance investigations of wastewater facilities and conducts investigations based on complaints received from the public. The TCEQ follows a Risk-Based Investigation Strategy whereby facilities are ranked according to risk: That ranking then determines when or how often the facility will be inspected. The TCEQ Region 14 in Corpus Christi may be contacted at (361) 825-3100 regarding these inspections.

COMMENT 70

David Gill asked whether the applicant had a licensed sewage and water plant operator.

RESPONSE 70

The wastewater treatment plant has a licensed wastewater treatment plant operator. Since the application is for wastewater discharge permit, there is no information available about a water plant operator.

COMMENT 71

David Gill asked whether the public would be allowed to collect samples of the discharge and test the samples, and what recourse did the public have in case of a noncompliance.

RESPONSE 71

The public may collect samples for analyses so long as they have permission to enter property where the sample is collected. Sample collection protocol and analytical procedure should follow 30 TAC Chapter 319. If samples are collected at the applicant 's sampling location in its property, sample collection should be coordinated with the applicant in order to enter the facility premises. Sampling may also be coordinated with TCEQ regional office (Region 14).

If you would like to file a complaint about the facility concerning its compliance with provisions of its permit or with TCEQ rules, you may contact the Agency at 1-888-777-3186 or you may contact the TCEQ Region 14 Office at 361-825-3100. Citizen complaints may also be filed on-line at the TCEQ website (select "Reporting," then "Reporting Environmental Problems," then "Reporting an Environmental Complaint"). If the facility is found to be out of compliance it will be subject to enforcement action.

COMMENT 72

David Gill asked whether TCEQ would fine or impose sanctions against the applicant in case of noncompliance.

RESPONSE 72

Noncompliance with TCEQ rules or the permit may result in an applicant receiving a notice of violation. If violations are discovered, they may be resolved by the TCEQ Field Operations Division or referred to the TCEQ Enforcement Division for formal enforcement proceedings. Under Texas Water Code (TWC), Section 7.052, a maximum administrative penalty of $10,000 per day per violation may be assessed. TWC, Section 7.053, and TCEQ's Enforcement Policy and Guidelines delineate the factors TCEQ may consider when determining a penalty. A fine for an environmental violation will vary for a variety of reasons, including: the severity of the violation, the compliance history of the permittee, the permittee's degree of responsibility for the violation, and the permittee's

good faith. For more information regarding enforcement, please see TCEQ's web site at www.tceq.state.tx.us/ and click on "Compliance, Enforcement and Cleanups."

COMMENT 73

David Gill inquired whether the directors and officers of Aransas MUD No. 1 would be held personally accountable and financially responsible for damages in case of noncompliance.

RESPONSE 73

Typically, for an entity like Aransas MUD No. 1, the district is liable for noncompliance. The officers and agents of the district are responsible to the voters of the district.

COMMENT 74

David Gill inquired about the impact of toxins in the fish from the discharge and asked for the study to determine the impact of the discharge when considering consumption of the "natural resources."

RESPONSE 74

Permit amendments are reviewed to ensure that permitted effluent limits will maintain instream criteria and uses. Water bodies in the discharge route are presumed to have incidental or sustainable fisheries. The Texas Surface Water Quality Standards state that toxic criteria to protect human health for consumption of aquatic organisms apply to these waters.

COMMENT 75

David Gill asked for a complete financial statements.

RESPONSE 75

Texas Water Code Chapter 26 and applicable wastewater regulations do not authorize the agency to require financial statements when reviewing a permit application. Thus, the TCEQ has no regulatory authority to consider financial statements when reviewing wastewater applications and draft permits.

Since the Aransas MUD No. 1 is a governmental body, its financial statements are public information subject to Texas Public Information Act.

COMMENT 76

David Gill recommended that Aransas MUD No. 1's board be comprised of individuals not necessarily located in the district.

RESPONSE 76

As a municipal utility district, Aransas MUD No. 1 and its board are governed by Chapters 49 and 54 of the Texas Water Code. The Executive Director cannot alter the composition of a municipal utility district's board in the wastewater permitting process.

COMMENT 77

Graden McVay was concerned about circulation patterns of the bays. Linda Pechacek noted that the application did not provide a description of the hydrology (including circulating current patterns) of Aransas and Copano Bays. She was concerned that discharging the effluent at the shoreline of Aransas Bay would not allow proper mixing.

RESPONSE 77

Due to the very high level of treatment proposed for this facility, combined with the strategy of initially discharging into the two ponds rather than directly into the bay, levels of oxygen-demanding constituents remaining in the wastestream following discharge is not expected to be at levels sufficient to have any significant impact on dissolved oxygen levels in Aransas or Copano Bays at the proposed flows. Thus, for purposes of analyzing potential dissolved oxygen impacts on the bays from the proposed discharge, the specific circulation patterns of the bay system were not a determining factor.

COMMENT 78

Linda Pechacek mentioned that a gabion rock/shell structure to promote solids deposition of the re-establishment of Goose Island was located very close to the proposed effluent discharge point and asked the impacts of this structure on Aransas Bay's shallow current patterns near the shoreline and the proposed effluent discharge point location. Linda Pechacek asked whether the gabion rock/shell structure has impacts similar to a baffle structure. Linda Pechacek asked whether the gabion rock/shell structure impacts the mixing zone. Linda Pechacek asked whether the gabion rock/shell structure promotes solids deposition. Linda Pechacek stated that the Tier 1 and Tier 2 antidegradation reviews are incomplete because they do not include an evaluation of the current patterns of Aransas and Copano Bays and the impacts of the rock/oyster shell gabion structure.

RESPONSE 78

Because of the very high level of treatment proposed for this facility and the polishing effect of the two ponds, concentrations of oxygen-demanding constituents entering the bays themselves are not expected to be at levels sufficient to cause a significant impact on dissolved oxygen levels in the bays. Consequently, for the purposes of analyzing potential dissolved oxygen impacts on the bays, the specific current patterns of the bay system were not analyzed in detail. Thus, any potential effect of the gabion rock/shell structure on current patterns in Aransas Bay was not considered in the evaluation of the proposed permit limits for oxygen-demanding substances.

The proposed effluent limit for total suspended solids is the most stringent in the state.

COMMENT 79

Linda Pechacek expressed concern about solids accumulation at a nearby discharge outfall, which she indicated had shown very high concentrations of *E. Coli* and *Enterococci*.

RESPONSE 79

The proposed effluent limit for total suspended solids is already the same as the limit for discharges upstream of the recharge zone of the Edwards Aquifer. In addition, the proposed discharge will be disinfected as required by 30 TAC Section 309.3(g).

COMMENT 80

Linda Pechacek suggested an effluent outfall to the deepest part of Aransas Bay.

RESPONSE 80

The proposed discharge is not directly into Aransas Bay. Rather, a very high quality effluent goes first into a series of two unnamed ponds, commingles with the ponds' water before discharge into Aransas Bay. The proposed discharge route is more protective than a direct discharge to Aransas Bay.

COMMENT 81

Linda Pechacek suggested that *Enterococci* be a permit parameter "since TCEQ has identified it as an appropriate parameter for marine waters."

RESPONSE 81

An effluent limit for bacteria is not required because the effluent is disinfected by means of chlorination and the segment is not impaired due to elevated bacteria levels of any kind.

COMMENT 82

Linda Pechacek suggested requiring the implementation of an effective solids management and control plan that prevents the discharge of excess solids during times of heavy rainfall and suggested that a wet weather facility could alleviate excess solids from being discharged.

RESPONSE 82

The use of a wet weather facility to absorb wastewater flows in excess of the hydraulic capacity of a wastewater treatment plant is currently being reviewed by the U.S. EPA on a nationwide basis. Consequently, there is currently no basis for the design and operation of a wet weather facility.

COMMENT 83

Linda Pechacek suggested requiring as a permit condition the submittal of data reporting both the volume of treated wastewater and the volume of the solids removed to indicate whether excess solids are being discharged from the plant by performing a solids mass balance.

RESPONSE 83

If the objective is to prevent the unauthorized discharge of wastewater and its solids content (TSS) or sludge, the draft permit already includes the following provisions:

Permit Condition 2d, page 7 of the draft permit:

d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment.

Permit Condition 2g, Page 7 of the draft permit:

g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater

into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.

Operational Requirements 1, Page 9:

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.

Sludge Provisions, Page 12:

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site or co-disposal landfill. The disposal of sludge by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ.

A mass balance calculation would only verify an unauthorized discharge after it happened.

COMMENT 84

Linda Pechacek suggested requiring periodic inspection near the outfall pipe to determine solids accumulation in piles. She further suggested that if piles are present, sampling must be done to determine bacterial contamination. If high concentrations are noted, she recommended that TCEQ should act to prevent additional accumulation.

RESPONSE 84

No maintenance should be needed at the outfall because of the high quality of the proposed discharge. Reports of water quality violations will be investigated by the TCEQ regional office.

COMMENT 85

Jim Smarr commented that fishing on Aransas Bay was the worse it has ever been, and that passes in the barrier islands needed to be opened.

RESPONSE 85

The Executive Director acknowledges this comment. However, fishing and maintenance of passes is beyond the Executive Director's statutory jurisdiction.

No changes to the draft permit have been made.

Respectfully submitted,

Texas Commission on Environmental Quality

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CHIEF CLERKS OFFICE
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on May 19, 2008, the "Executive Director's Response to Public Comment" for Permit No. WQ0011624001 was filed with the Texas Commission on Environmental Quality's Office of the Chief Clerk.

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